



A.D. 1871, 25th *MARCH*.

N° 813.

SPECIFICATION

OF

GEORGE KENT.

SMOKE CONSUMING APPARATUS.

LONDON:

PRINTED BY GEORGE E. FINE AND WILLIAM STOTTISWOODE,

PRINTERS TO THE QUEEN'S MOST EXCELLENT MAJESTY:

PUBLISHED AT THE GREAT SEAL PATENT OFFICE,

26, SOUTHAMPTON BUILDINGS, DOCKROAD.

1871.



A.D. 1871, 25th MARCH. N° 813.

Smoke Consuming Apparatus.

(This Invention received Provisional Protection only.)

PROVISIONAL SPECIFICATION left by George Kent at the Office of the Commissioners of Patents, with his Petition, on the 25th March 1871.

I, GEORGE KENT, of Buckland, in the County of Hants, do hereby
5 declare the nature of the said Invention for “**AN IMPROVED ARRANGEMENT
OF SMOKE CONSUMING APPARATUS,**” to be as follows:—

This Invention relates to a novel arrangement for introducing heated
air into the flame generated in the fireplaces of steam boilers for the
purpose of preventing the formation of smoke or effecting its combustion
10 when formed.

Supposing the Invention to be applied to a marine tubular boiler,
I connect air tubes with the front flue plate and lead them through
the boiler tubes or water space and through the smoke box or back flue
to a hollow bridge at the back of the fireplace, the tubes entering the
15 bridge near the level of the fire bars. Near the top of the bridge
and at the back side thereof are openings in connection with the central
space of the fire bridge for the purpose of allowing the air to escape
and commingle with the gaseous products of combustion. The ends
of the tubes connected with the front flue plate are open to the

Kent's Improved Smoke Consuming Apparatus.

atmosphere, and air admitted to these tubes will be gradually heated first by the hot gases or water surrounding the tubes and then by the hot gases of combustion in the smoke box or back flue, so that when it enters the bridge the air will be highly heated. The discharge of this air into the combustible gases as they pass the bridge will 5 add great intensity to the flame, and thus ensure the ignition of any floating particles of carbon which may be carried over by the flame.

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Printers to the Queen's most Excellent Majesty. 1871.

